UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/657,501	09/08/2000	Marc Noel Blais	ROC9-2000-0095-US1	2860

24038	7590	03/25/2004

MARTIN & ASSOCIATES, LLC
P O BOX 548
CARTHAGE, MO 64836-0548

EXAMINER
HOANG, PHUONG N

ART UNIT	PAPER NUMBER
2126	

6

DATE MAILED: 03/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

		Application No.		Applicant(s)
		09/657,501		BLAIS, MARC NOEL
Office Action Summary		Examiner		Art Unit
		Phuong N. Hoang		2126

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 January 2004*.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 41* is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☒ Claim(s) *12, 24, and 39 - 41* is/are allowed.
6)☒ Claim(s) *1 - 2, 5 - 6, 8 - 11, 13 - 14, 17 - 18, 20 - 23, 25 - 29, 32 - 33, and 35 - 38.* is/are rejected.
7)☒ Claim(s) *3 - 4, 7, 15 - 16, 19, 30 - 31, and 34* is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a)☐ All b)☐ Some * c)☐ None of:
     1.☐ Certified copies of the priority documents have been received.
     2.☐ Certified copies of the priority documents have been received in Application No. _____.
     3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
        application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1 – 41 are pending for examination.

2.   Claims 12, 14, and 39 – 41 are allowable over prior art of records.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

**4.   Claims 1, 5, 6, 8, 13, 17, 18, 20, 25 – 28, 32, 33, and 35 are rejected under 35

U.S.C. 103(a) as being unpatentable over the admitted prior art (APA) pages 1 – 3,

and 7 – 12, in view of Golde, US patent no. 6,381,734.**

5.   **As to claim 13,** the APA teaches the steps of:

loading a plurality of Java classes (class loading by JVM, page 1 and fig. 3);

performing a plurality of checks (checking on different phrases, page 1 lines 15 -

25).

The APA does not teach each of the plurality of Java classes that is protected including state data that indicates a protected class, the plurality of checks determining whether the class being loaded accesses at least one protected class, and if so, determining whether the class being loaded is authorized to access the at least one protected class, and generating an exception if the class being loaded is not authorized to access the at least one protected class.

Golde teaches the steps of:

each of the plurality of Java classes that is protected including state data that indicates a protected class (if m is protected, col. 9 lines 50 – 53);

plurality of checks determining whether the class being loaded accesses at least one protected class, determining whether the class being loaded is authorized to access the at least one protected class (if m is protected, the m is accessible if and only if T is in the same package as C, or C is T or a subclass of T, col. 9 lines 15 – 60), and generating an exception if the class being loaded is not authorized to access the at least one protected class (If either T or m is not accessible, exception is produced, col. 9 lines 50 – 60).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of the APA and Golde's because Golde's checking of the accessing to protected class is necessary during the class loader process to insure the integrity of system level code.

6.   **As to claim 17,** Golde teaches the step of wherein a class is a protected class if

the class is defined as a private domain class or a system state class (protected class

can be accessible by more levels than private class, col. 9 lines 47 – 56).

7.   **As to claim 18,** Golde teaches the steps of:

plurality of checks during class verification that determines whether a class being

verified implements a private domain interface (private interface, col. 9 lines 25 – 55) or

a system state interface, and if the class being verified is not included in a catalog of

allowed classes (JVM software 16 must insure .... Accessible, col. 9 lines 40 - 41)

throwing an exception (exception is produced, col. 9 lines 40 - 60).

8.   **As to claim 20,** Golde teaches the plurality of checks during class preparation

that determines whether a class being prepared has a superclass, and if the superclass

implements a private domain interface or a system state interface, and if the class being

prepared does not implement at least the same private domain interface or system state

interface as the superclass, throwing an exception (col. 8 lines 45 – 54).

9.   **As to claim 1,** it is the apparatus claim of claim 13. See rejection of claim 13

above.

10.   **As to claims 5, 6, and 8,** see rejections of claims 17, 18, and 20 above.

11.   **As to claim 26,** it is the product claim of claim 13. See rejection of claim 13

above. Further, Golde teaches a signal bearing media (floppy disk, col. 24 lines 20 –

25).

12.   **As to claims 27 and 28,** Golde teaches a signal bearing media is recordable

and transmission media (floppy disk, col. 24 lines 20 – 25).

13.   **As to claims 32, 33, and 35,** see rejections of claims 17, 18, and 20 above.

14.   **As to claim 25,** it is the software claim of claim 13. See rejection of claim 13

above.   Further, Golde teaches a catalog of allowable classes, the catalog including all

protected classes a catalog of allowed classes (JVM software 16 must insure ….

Accessible, col. 9 lines 40 - 41) that is generated during a JVM build process that

packages the plurality of classes together into an installable form (the software can be

installed for execution).

15.   **Claims 2, 14, and 29 are rejected under 35 U.S.C. 103(a) as being**

unpatentable over the admitted prior art (APA) pages 1 – 3, and 7 – 12, in view of

Golde, US patent no. 6,381,734, and further in view of Briggs, US patent no.

6,397,384.

16.   **As to claims 2, 14, and 29,** Golde teaches the step of when a function is

invoked that could potentially access a method on one or more of the plurality of classes

(col. 9).

However, the APA and Golde do not teach the step of performing at least one

runtime check when a method that may reference a dynamically defined class is

invoked.

Briggs teaches the step of performing at least one runtime check when a method

that may reference a dynamically defined class is invoked (dynamically defined a class,

col. 7 lines 20 – 25).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to combine the teachings of the APA, Golde, and Brigg's because

Brigg's dynamically defined class would be useful so the JVM can load as many classes

as needed on the fly without pre-defined.

17.   **Claims 9 - 11, 21 - 23, 36 - 38 are rejected under 35 U.S.C. 103(a) as being**

unpatentable over the admitted prior art (APA) pages 1 – 3, and 7 – 12, in view of

Golde, US patent no. 6,381,734, and further in view of Fresko, US patent no.

5,966,701.

18.   **As to claims 9, 21, and 36,** the APA and Golde do not teach the steps of check

during class resolution that determines whether a class being resolved to by a

referencing class implements a private domain interface, and if the class being resolved

to by the referencing class implements the private domain interface, and if the referencing class does not implement a system state interface, generating an error.

Fresko teaches the steps of check during class resolution that determines whether a class being resolved to by a referencing class implements a private domain interface, and if the class being resolved to by the referencing class implements the private domain interface, and if the referencing class does not implement a system state interface, generating an error (col. 47 lines 13 – 20).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the APA, Golde, and Fresko's because Fresko's check during resolution class would provide the resolved accessing to the private interface.

19.   **As to claims 10, 22, and 37,** Fresko teaches the step of wherein the check during class resolution is performed before runtime when a class is loaded by a JVM (col. 47).

20.   **As to claims 11, 23, and 38,** the APA teaches the resolution is perform at runtime (page 11 lines 7 – 17).

Allowable Subject Matter

21.   Claims 3, 4, 7, 15, 16, 19, 30, 31, and 34, are objected to as being dependent

upon a rejected base claim, but would be allowable if rewritten in independent form

including all of the limitations of the base claim and any intervening claims.

Response to Arguments

22.   Applicant's arguments, filed on 1/12/04, have been considered but are moot in

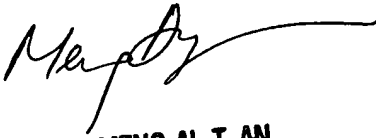view of the new ground(s) of rejection.

Conclusion

23.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Phuong N. Hoang whose telephone number is (703)

605-4239. The examiner can normally be reached on Monday - Friday 9:00 am to 5:30

pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Meng-Ai An can be reached on (703)305-9678. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Ph
March 19, 2004

MENG-AL T. AN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100